pulse for measuring an ultra high speed phenomenon.--;

Page 1, replace the paragraph beginning on line 22 and bridging pages 1 and 2 as follows:

--The ultra-short optical pulse is used as the sampling gate pulse for measuring optical sampling waveforms, for example, an optical measurement for eye patterns of the optical waveform. For measuring individual sampling values, it is necessary that respective cross-correlation signal optical pulses are photoelectrically converted without any interference with any adjacent pulse. For this purpose, it is further necessary that a cyclic frequency of the cross-correlation signal optical pulse or a cyclic frequency of the sampling optical pulse is set under a frequency band of an optical receiving system. For this reason, differently from optical communication, a string of optical pulses with a low cyclic frequency of not more than 1GHz is needed.--.

A2 cont.

Page 2, replace the paragraph beginning on line 9 as follows:

--For improvement in resolving power, the ultra-short optical pulse of a few picoseconds to a few femtoseconds is desirable. The mode locking semiconductor laser utilizing the external cavity is usable for emitting strings of the ultra-short optical pulses of the low cyclic frequency.--.

Page 4, replace the paragraph beginning on line 15 and bridging pages 4 and 5 as follows:

--The mode locking semiconductor device having a cyclic frequency (mode locking oscillation frequency) of not more than 1GHz needs the external cavity with a cavity length of ten centimeters to several tens of centimeters. The mode locking semiconductor laser system of FIG. 1 utilizes a free space for the optical path, for which reason the cavity length is long. If the cyclic frequency is 1GHz, the cavity length is 15 centimeters. If the cyclic frequency is 250MHz, the cavity length is 60 centimeters. It is difficult that the long optical path is accommodated within a narrow space. It is difficult to reduce the size of the mode locking semiconductor laser system. The large size mode locking semiconductor laser system is disadvantageous in that a slight vibration or a slight strain may cause a relatively large displacement of parts and the mode locking semiconductor laser system is likely to receive influences of the temperature variation and the mechanical vibration. The large size mode locking semiconductor laser system is likely to allow that the oscillation frequency, the cyclic frequency, the polarization state and the optical output intensity vary beyond respective acceptable ranges. It is difficult to obtain a desirable long time and highly stable operation.--.

Page 6, replace the paragraph beginning on line 3 as follows:

--It is a still further object of the present invention to provide a novel mode locking semiconductor laser system including a semiconductor laser device and an external cavity, wherein the mode locking semiconductor laser system is superior in stability for a long time in oscillation frequency, cyclic frequency and polarized wave plane against temperature variation and mechanical vibration.--.

Page 29, replace the paragraph beginning on line 2 as follows:

--The optical isolator 9 allows oscillation in a clockwise-directional traveling wave locking mode. It is, of course, possible that the optical isolator 9 allows oscillation in a counter-clockwise-directional traveling wave locking mode. It is also possible that in place of the directional coupler 10, an optical branching filter may also be available for fetching the laser pulses. It is also possible that in place of the directional coupler 10, a translucent mirror is provided on any point on the polarization-preserving optical fiber 6. It is also possible that the isolator 9 is not provided.--.

<u>IN THE CLAIMS:</u>

Add the following new claims:

--11. (new) The optical system of claim 1, wherein the said cavity length is adjustable by an optical path length

adjuster.

--12. (new) The optical system of claim 11, wherein the optical path length adjuster is a set of paired wedge prisms.

--13. (new) The optical system of claim 11, wherein the optical path length adjuster is a set of right-angled isosceles triangle prisms.

--14. (new) A mode locking semiconductor laser system, comprising:

a semiconductor laser device with a reflective facet; and

a polarization-preserving optical fiber with a non-reflective terminal at a fixed end and a reflective terminal at a free end,

the polarization-preserving optical fiber optically coupled to the semiconductor laser device,

wherein a cavity length is defined between the reflective facet of the semiconductor laser device and the reflective terminal of the polarization-preserving optical fiber, and

the free end of the optical fiber is free of connection to any element.

--15. (new) The system of claim 14, further comprising:

a first collimator lens;

a wavelength splitter;

an optical path length adjuster; and

a condenser lens,

the semiconductor laser device with a reflective facet, the first collimator lens, the wavelength splitter, the optical path length adjuster, and the condenser lens aligned on an optical axis,

the first collimator lens disposed between the semiconductor laser device and the wavelength splitter,

the wavelength splitter disposed between the first collimator lens and the optical path length adjuster,

the condenser lens disposed between the optical path length adjuster and the non-reflective terminal of the polarization-preserving optical fiber, and

the polarization-preserving optical fiber optically coupled to the semiconductor laser device through the first collimator lens, the wavelength splitter, the optical path length adjuster and the condenser lens.

--16. (new) The system of claim 14, wherein the cavity length is adjustable by an optical path length adjuster.

--17. (new) The system of claim 15, wherein the optical path length adjuster is a set of paired wedge prisms.

--18. (new) The system of claim 15, wherein the optical path length adjuster is a set of right-angled isosceles triangle